2011 ELP Awards Descriptions

ExxonMobil (BR Refinery & Chemical Plant), Baton Rouge, LA:
Earth Day Science Challenge
ExxonMobil (BR Refinery & Chemical Plant) is being awarded an *Environmental Leadership Program (ELP) Special Recognition Award in Community Environmental Outreac*h for its first ever Louisiana Earth Day Science Challenge. Over 150 students from eight local area middle and high schools competed for prizes by creating hands-on, interactive science demonstrations that reflect an awareness and appreciation for the Earth's environment. ExxonMobil employees served as mentors to guide students through their projects during the spring semester. Local leaders in science judged the demonstrations and prizes were awarded to the winning schools. Each of the participating schools received a $500 volunteer involvement grant from the ExxonMobil Foundation and all students were presented certificates of participation. The winning schools received trophies and the teachers of the first place schools were sent to the Smithsonian Science Education Academy in Washington, DC for a week-long trip last summer. All teachers received a binder of all of the demonstrations for classroom use. Next year's goal is to expand involvement to include more schools.

Monsanto Company, Luling, LA:
Carbon Footprint Reduction through Hydrogen Recovery Project
Monsanto Company is being awarded an *Environmental Leadership Program (ELP) Large Business Achievement Award in Pollution Prevention* for reducing natural gas consumption by 665,000 MMBTU by using recovered hydrogen. Since hydrogen stream does not contain carbon, it does not create carbon dioxide (CO_2) when burned; instead, it forms water. The reduction in CO_2 emissions by 38,000 metric tons/year represents the amount of CO_2 formed by driving a car 95 million miles. With the average commuter driving 15,000 miles/year, this project is equivalent to removing 6,300 cars from the road.

PPG Industries, Lake Charles, LA:
Screening of Derivatives Copper Catalyst
PPG Industries is being awarded an *Environmental Leadership Program (ELP) Large Business Achievement Award in Pollution Prevention* for the screening and reuse of used copper catalyst in fluidized reactor beds. Benefits include a reduced dependence and need for virgin resources extracted from the environment and the reduction of approximately 147 tons annually in the disposal of hazardous and industrial solid waste. The reduction in virgin catalyst purchases and spent catalyst disposal resulted in savings of over $500,000.

Valero St. Charles Refinery, Norco, LA:

CEMS Expansion and Data Management Program

Valero St. Charles Refinery is being awarded an *Environmental Leadership Program (ELP) Large Business Achievement Award in Pollution Prevention* for developing a real-time system of emissions calculations and alert notifications. As a result, improvements include: 1) an increased ability to calculate emissions rates based on direct measurements; 2) real-time emission rate calculations; 3) E-mail notifications that warn operators and refinery leadership of current or pending environmentally significant events; and 4) daily environmental performance summaries e-mailed to refinery managers. These improvements shortened response time, heightened awareness of consequences and improved the accuracy of emissions inventory reporting.

Monsanto Company, Luling, LA:

Steam Condensate Recovery Project

Monsanto Company is being awarded an *Environmental Leadership Program (ELP) Large Business Recognition Award in Pollution Prevention* for re-using steam condensate (that was previously discharged) within a production facility to reduce water and energy consumption. This project reduces the amount of demineralized water by 45 million gallons/year and an equivalent volume of water discharged from the facility. Additionally, the steam condensate provides a portion of the unit's heating requirements, resulting in the direct reduction of 25 million pounds/year of steam consumption. The facility's greenhouse gas emissions have been reduced by 1,074 metric tons/year, and criteria pollutant emissions by 4 tons/year.

Valero St. Charles Refinery, Norco, LA:

Storage Tank Degassing Project

Valero St. Charles Refinery is being awarded an *Environmental Leadership Program (ELP) Large Business Recognition Award in Pollution Prevention* for reducing volatile organic compounds (VOC) emissions associated with emptying and cleaning large volatile organic liquid storage tanks. Tank emissions represent one of the two largest sources of uncontrolled emissions at the refinery, the second being fugitive emissions. To control the emissions from storage tank cleaning operations, Valero utilized a mobile thermal oxidizer (TOX) unit, to pull air and evaporative loss components through the tank and use them as a fuel source. The use of a TOX unit for cleaning tanks has significantly reduced annual emissions, potential for safety hazards, nuisance conditions or odors, and acceleration of the vapor purge or degassing phase of the tank cleaning. For this project, the significant reduction in ambient air quality impacts outweighs the cost of the operation.

ExxonMobil Chemical Polyolefins Plant, Baton Rouge, LA:

Landfill Gas Project

ExxonMobil Chemical Polyolefins Plant is being awarded an *Environmental Leadership Program (ELP) Large Business Recognition Award in Pollution Prevention* for taking 85% of the gasses produced and previously being flared at the East Baton Rouge Parish North Landfill and using it as fuel in existing ExxonMobil boilers. Decomposing waste produces a gas mixture that is approximately 50% methane and approximately 50% carbon dioxide (CO_2). This project converted wasted energy to usable energy, thereby resulting in a net reduction of greenhouse gas emissions (CO_2) for Baton Rouge. Using the EPA Environmental Benefits Calculator, this improvement is the equivalent of removing 59,000 cars from the road or planting 79,000 acres of forest over the life of the project. This project was a collaborative implementation by ExxonMobil Chemical BR Polyolefins Plant, Sustainable Energy Solutions, Novolyte Technologies and East Baton Rouge Parish North Landfill.

ExxonMobil Complex, Baton Rouge, LA:

Arboretum and Learning Center

ExxonMobil Complex is being awarded an *Environmental Leadership Program (ELP) Large Business Achievement Award in Community Environmental Outreach* for establishing a wildlife habitat on surplus property and providing education to children about wildlife habitat, conservation, ecology, urban forestry and biology. ExxonMobil Complex received the ***Wildlife at Work Certification*** from the **Wildlife Habitat Council**, a non-profit organization that encourages industry to return surplus land to wildlife habitats. The ***Wildlife at Work Certification*** was received for several ExxonMobil properties around the Baton Rouge area, including the Arboretum and Learning Center. The Arboretum and Learning Center, which is an ExxonMobil surplus property, also received the ***Corporate Lands for Learning Certification*****,** which fosters an awareness of the value of wildlife habitat conservation through the introduction of the sciences to students in the local community. Through the volunteer efforts of ExxonMobil employees, Southern University students and Boy Scouts, 45 bird-nesting boxes (bluebirds, wood ducks, bats, and purple martins) were built and installed, approximately 300 trees of varying species were planted to enhance the flora and fauna and five acres were designed and developed for coastal prairie mix pollinator fields.

Nalco Company, Norco, LA:

Green House Gases Prevention

Nalco Company is being awarded an *Environmental Leadership Program (ELP) Medium Business Achievement Award in Pollution Prevention* for the elimination of green house gases (GHG) via the implementation of the product campaign initiative. The concept of campaigning production activities of similar product chemistry batches allows the Production Department to manufacture multiple batches with fewer process/equipment clean up events between batch cycles. Calculations indicate the elimination of approximately 4.8 billion BTUs resulting from the heating of water for clean-up and the electricity required to operate pumps and agitators.

The elimination of the steam usage and electricity requirements described above represents the elimination of approximately 250 metric tons of GHG emissions annually.

Alon Refining-Krotz Springs, Krotz Springs, LA:
Solid & Hazardous Wastes Recycling & Reduction

Alon Refining-Krotz Springs is being awarded an *Environmental Leadership Program (ELP) Medium Business Recognition Award in Pollution Prevention* for implementing a program to identify alternative means of solid and hazardous waste disposal. The refinery was able to eliminate aerosol cans, a hazardous waste stream, send spent catalyst out for reclamation instead of disposal and recycle hazardous waste lamps and non-lead acid batteries. The facility undertook a $12 million renovation of Complex II to effectively reduce the output of spent catalyst fines by nearly one ton per day. The environmental benefits more than compensate for the economic costs and will therefore benefit the refinery, its neighbors and the environment.

Capital Area Corporate Recycling Council, Baton Rouge, LA:
E-Recycling Events for 2010

Capital Area Corporate Recycling Council (CACRC) is being awarded an *Environmental Leadership Program (ELP) Non-governmental Organization Achievement Award in Pollution Prevention* for conducting 21 electronic recycling events with municipalities across the state and recycled over 150,000 pounds of material, including CPUs, monitors, printers, laptops, flat screen monitors, and mixed breakage items. CACRC proactively cooperated with local governments and businesses to participate in E-Recycling events. CACRC also co-sponsored special one-day events with Energy Centre in New Orleans, WBRZ, Whole Foods and the Green Project to provide drop off points where they were non existent and augment existing recycling opportunities. Together, the municipal and special one-day events collected approximately 2,200,000 pounds of electronic material and either refurbished and placed into CACRC's community programs or recycled.

Bentley's Country Club Auto Repair and Collision, Inc., Lake Charles, LA:
Limit Waste Project

Bentley's Country Club Auto Repair and Collision, Inc. is being awarded an *Environmental Leadership Program (ELP) Small Business Achievement Award in Pollution Prevention* for starting a pollution prevention program focused on reducing the emissions released and waste generated by the auto repair shop. The project was initiated in 2009 with a challenge to change the way the shop was operated, thereby making it more environmentally friendly. New water-based paint booths were installed that eliminated approximately 90% of VOC emissions when compared to the old solvent-based paint booths. A recycling program was established that included numerous items such as scrap metal, used oil and oil filters, antifreeze, paint waste, absorbent pads, oily rags, old batteries, tires and ink cartridges. The shop also connected to the city sewer system to prevent storm water runoff. These changes were implemented throughout the shop to improve the quality of work and the community as well.

Town of Grand Isle, Grand Isle, LA:

Non-Point Source Runoff Improvements and Revegetation

Town of Grand Isle is being awarded an *Environmental Leadership Program (ELP) Municipality Recognition Award in Pollution Prevention* for combining non-point source pollution prevention and conservation systems while providing recreation and aesthetic opportunities for the public. This restoration project provided many ecological benefits, including wildlife habitat and reduced non-point source pollution. At Chenier Park and the Community Center, actions included installing permeable parking, cisterns for collecting rain water and creating vegetative swales and rain gardens. Prior to these voluntary improvements, heavy rains would inundate the grounds and generate polluted for days. Through this work, the Town of Grand Isle has improved the water quality of their runoff, thereby reducing the amount of contaminants that enter the Gulf of Mexico.

Audubon Zoo, New Orleans, LA:

Implementation of Green Practices

Audubon Zoo is being awarded an *Environmental Leadership Program (ELP) Non-Governmental Organization Achievement Award in Community Environmental Outreach* for implementation of green practices throughout all facilities and departments, resulting in measurable reduction in materials disposed in landfills, greatly increasing recycling efforts, and diminished use of electricity throughout the zoo. The zoo's "Green Team" focused on rethinking what was used, how things were used and how debris was disposed of. Highly creative efforts to implement green practices have resulted in savings all across the zoo, including the establishment of a very successful composting program. The nutrient-rich soil product, labeled "*ZooDoo Gold*", is donated to school groups for various projects and made available to the general public as well. Composting efforts at the zoo yield close to 25 tons of "*ZooDoo Gold"* per month. Audubon Zoo keeps recycling front and center so that visitors and volunteers are made aware of green and environmental issues.

Louisiana State University, Office of Facility Services, Baton Rouge, LA:

EPA Game Day Challenge

Louisiana State University, Office of Facility Services is being awarded an *Environmental Leadership Program (ELP) University Achievement Award in Pollution Prevention* for implementing waste reduction programs during one home football game as part of the 2010 EPA –WasteWise Game Day Challenge. Participating colleges and universities from across the nation chose one home football game in October, tracked and reported recycling and waste data. Results and comparisons were made and rankings were released by EPA. The goals were to lower the waste generated at college football games, increase participation by students, faculty, staff and the community in waste reduction programs and heighten awareness of waste reduction programs. Statistics for the October 2, 2010 game indicated a total of 14.85 tons of

waste were recycled (with a calculated recycling rate of 0.344 lb/person) and a 47.37 metric ton reduction in GHG emissions (0.00051 lb/person). When compared to other schools in the Southeastern Conference, LSU ranked #1 in these categories. By increasing the collection of recyclables, LSU diverted more materials to the market to be reused, thus decreasing the impact at the landfill and reducing the use of energy for processing raw materials.

Harry Hurst Middle School Green Team, Destrehan, LA:
Recycling Program

Harry Hurst Middle School Green Team is being awarded an *Environmental Leadership Program (ELP) School Recognition Award in Pollution Prevention* for establishing a campus-wide recycling program. Team members have been actively involved in educating the student body and faculty as to the need and requirements of recycling. Their actions have influenced other programs on campus, such as the Talented Drama Program, which wrote and produced a video to further promote recycling among the student body. They initiated a poster campaign to describe recyclables and encourage all stakeholders to participate. They have also partnered with a local business, Phoenix Recycling, to promote recycling awareness within the community.

Louisiana State University, Office of Facility Services, Baton Rouge, LA:
Sustainability & Recycling Social Media Communication

Louisiana State University is being awarded an *Environmental Leadership Program (ELP) University Recognition Award in Community Environmental Outreach* for expanding its use of technology to communicate campus sustainability and recycling information and issues through its sustainability website, Facebook page and sustainability listserv. These networking sites were created to communicate the University's green initiatives and progress toward environmental stewardship as well as educate the community about sustainability and recycling in general. This has led to partnerships with other departments and local businesses to promote and enhance improvements in environmental quality, such as the electronic waste drives through Capital Area Corporate Recycling Council and LSU Department of Finance and Administration. As social media has quickly become a vital part of our everyday existence, using these electronic tools to creatively distribute timely information to a large population has had significant impact on the University and surrounding communities.

Jennings High School, Jennings, LA:
Environmental Recycling Program

Jennings High School is being awarded an *Environmental Leadership Program (ELP) School Recognition Award in Community Environmental Outreach* for their environmental recycle program, "*Making a Difference" (MAD*). Participating students were inspired to establish a

recycling program on the campus and are actively involved in the collection and packaging of paper and other recyclable items. To further promote environmental awareness, the students initiated a poster campaign to influence other clubs and organizations on campus as well as the community to “Go Green”.